



Pertussis Report

April 13, 2011

- **New in this report:** Disease activity in 2011 is still at relatively increased levels throughout the state. The number of cases in 2010 represents the most cases reported in 63 years since there were 9,394 cases reported in 1947. The data in this report differs from data published in prior reports due to case reclassification and removal of duplicates; finalized 2010 data will be available in May 2011.
- **733 cases with onset in 2011** have been reported to CDPH. The state rate per observed person-days is **6.5 cases/100,000**.
 - Disease activity levels remain high; the number of cases occurring in January 2011 was the same as the number reported during the peak months of 2005 (Figure 1).
 - 8 cases were hospitalized (of 14% with complete data).
 - No deaths have been reported.
- **9,273 cases with onset in 2010** have been reported to CDPH for a state rate of **23.7 cases/100,000**.
 - This is the most cases reported in 63 years when 9,394 cases were reported in 1947, a peak year, and the highest incidence in 52 years when a rate of 26.0 cases/100,000 was reported in 1958. Previously, the peak was in 2005 when there were 3,182 cases reported (Figure 2).
 - Of the 92% of cases with known hospitalization information, 755 (9%) cases have been hospitalized
 - 419 (55%) of hospitalized cases were infants <3 months of age and 547 (72%) were infants <6 months of age.
 - 414 (76%) of the hospitalized infants <6 months of age with known race and ethnicity were Hispanic.
 - Ten deaths have been reported; 9 (90%) were Hispanic infants. Nine fatalities were infants <2 months of age at time of disease onset and had not received any doses of pertussis-containing vaccine and the remainder was an ex-28 week preemie that was 2 months of age and had received the first dose of DTaP only 15 days prior to disease onset. The majority of infant cases in 2010 have occurred in infants <3 months of age (Figure 3).
 - The case-fatality rate among infants <3 months of age is 1.4%.
 - Case Classification:
 - Confirmed: ~60%
 - Probable: ~19%
 - Suspect: ~21%
 - The median case rate by county is 18.7 cases per 100,000 (range 0-140) (Table 1).
 - Rates are highest in infants <6 months of age (441.7 cases/100,000), in children aged 6 months to 6 years (63.0 cases/100,000), 7-9 years (68.0 cases/100,000)

and adolescents aged 10-18 years (49.3 cases/100,000) (Figure 4). The majority of adolescent cases are in 10-11 year-olds (Figure 5).

- Overall rates by race/ethnicity are highest in Hispanics (26.6/100,000) and whites (21.1/100,000), however age-specific rates indicate that the highest rates are seen in Hispanic infants <6 months of age (576.9/100,000) (Figures 3 and 4).

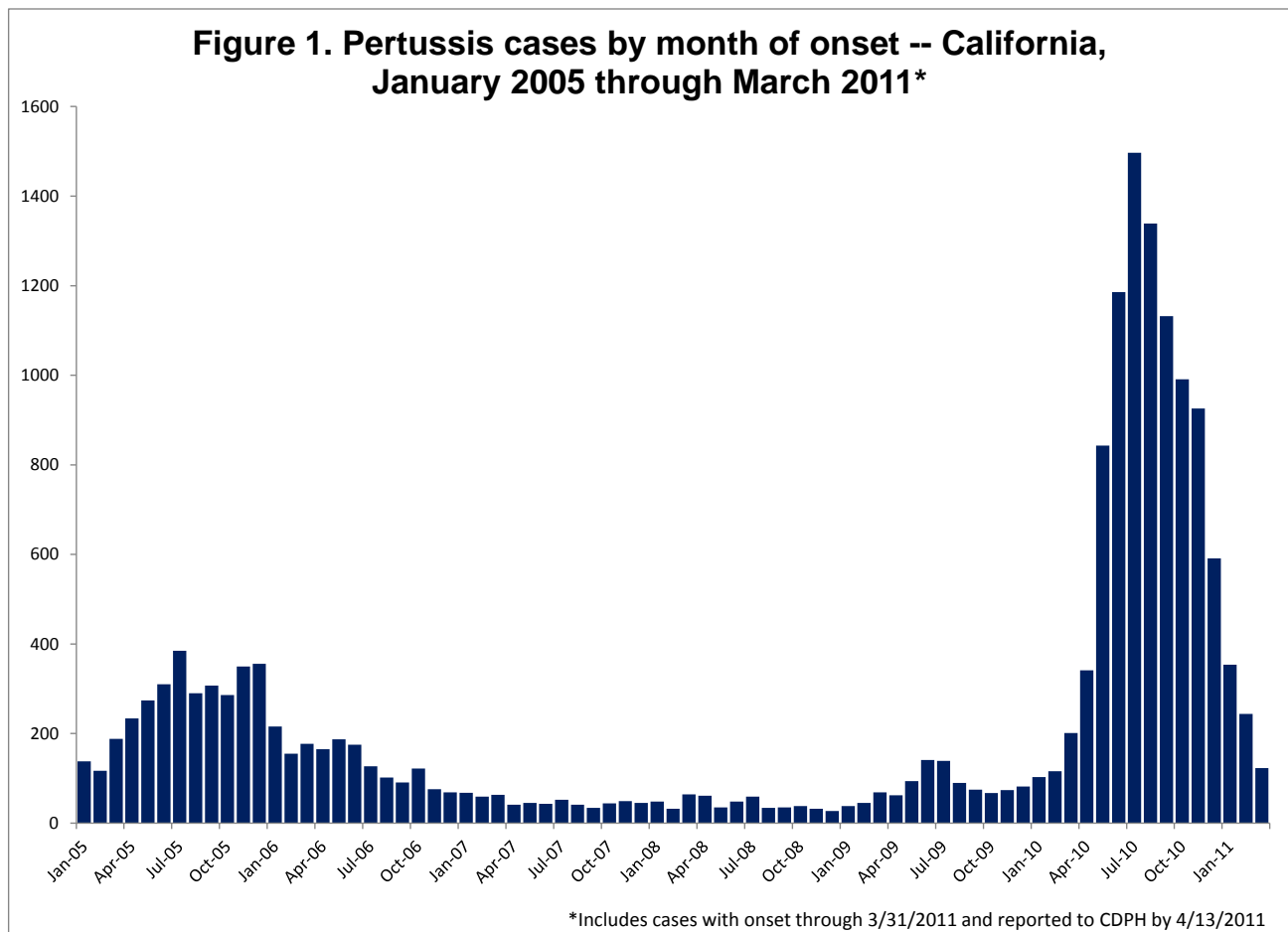


Figure 2. Number of reported pertussis cases by year of onset -- California 1947-2010*

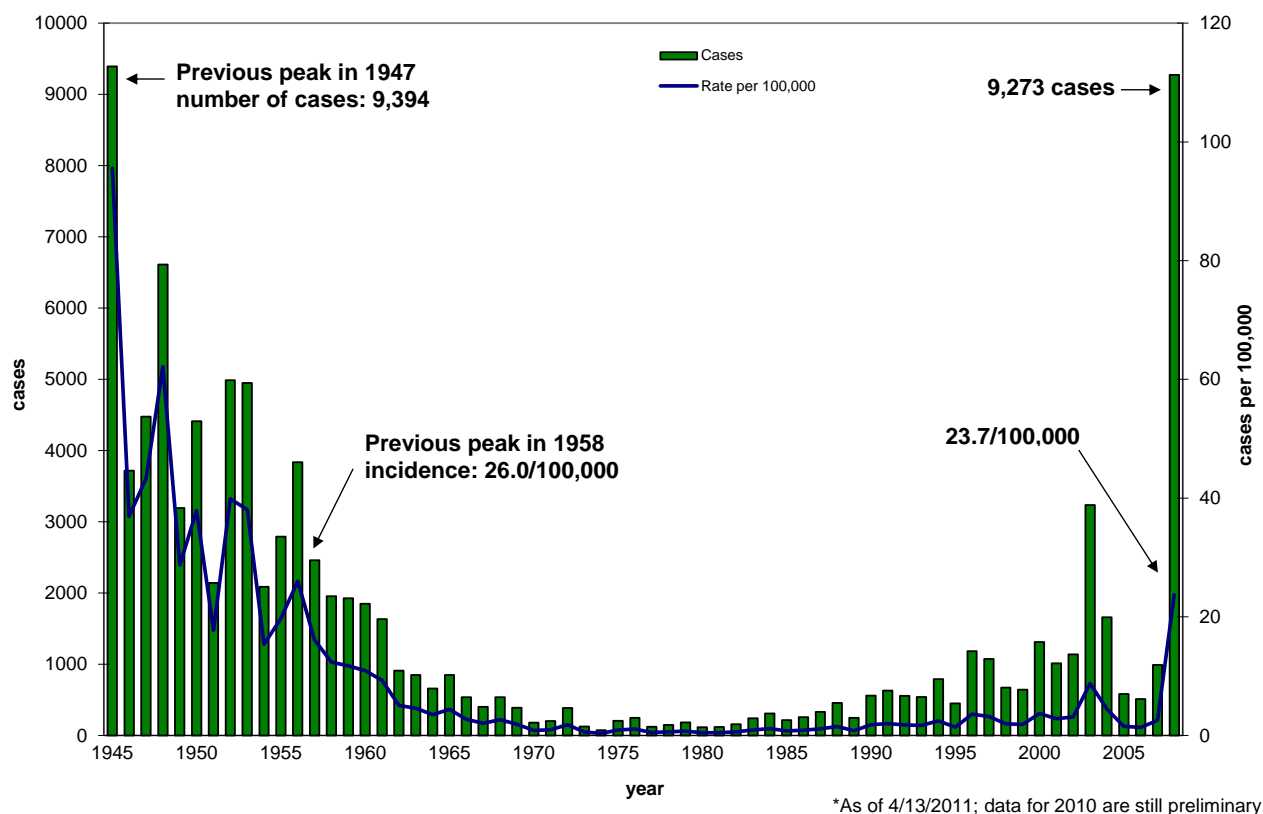


Figure 3. Infant pertussis cases by age in months -- California, 2010*

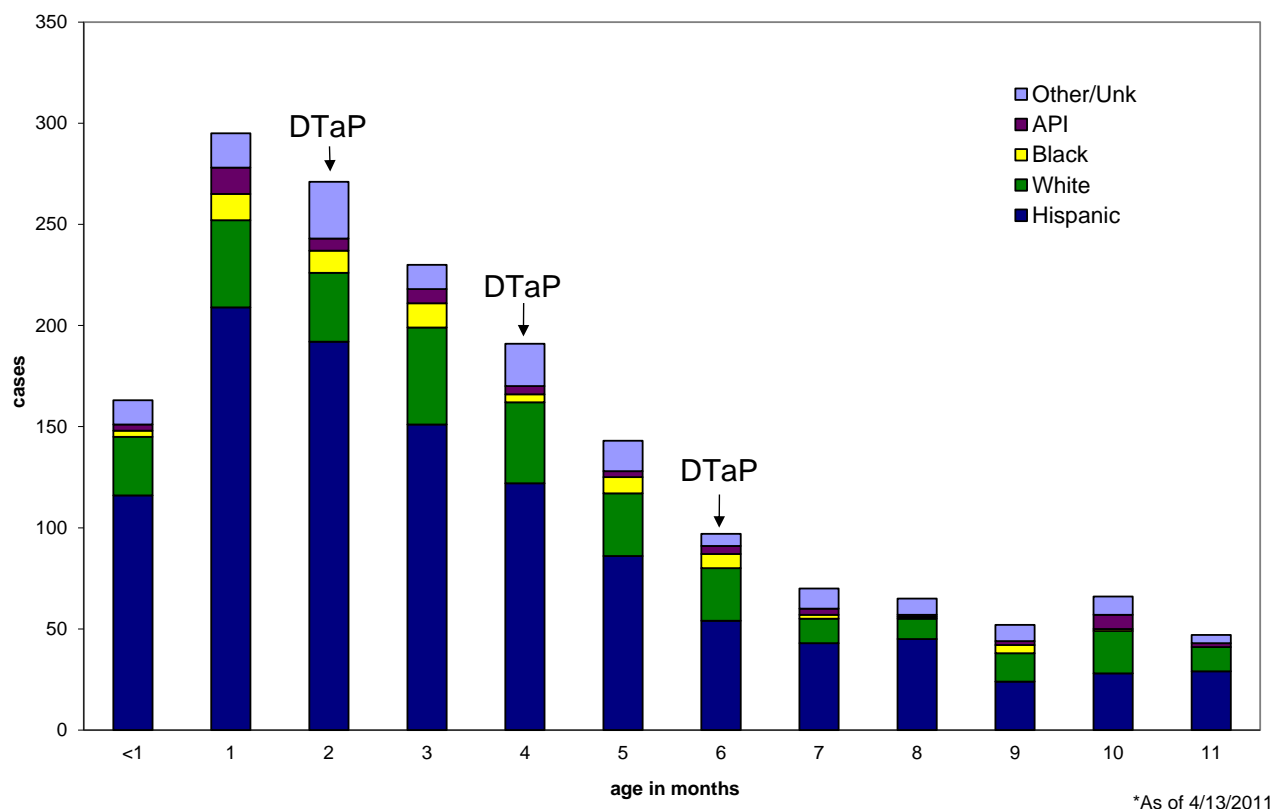
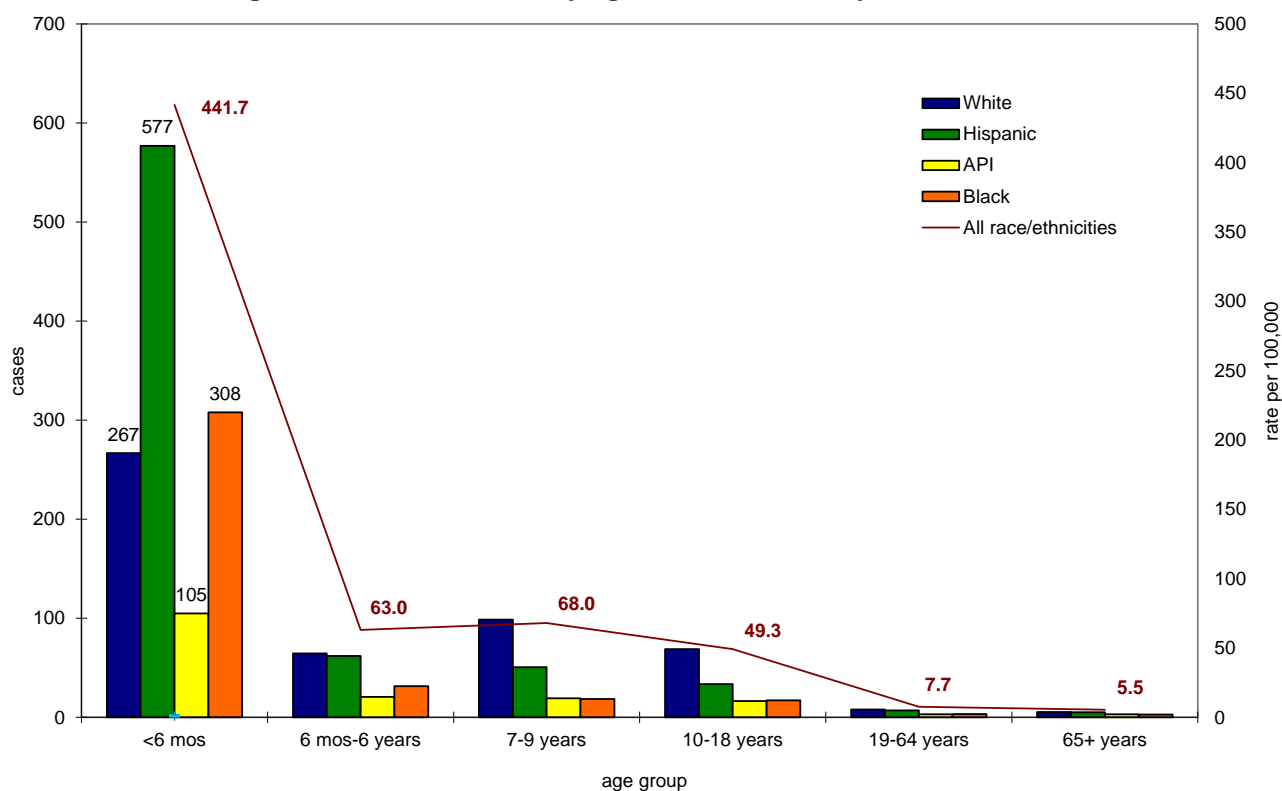
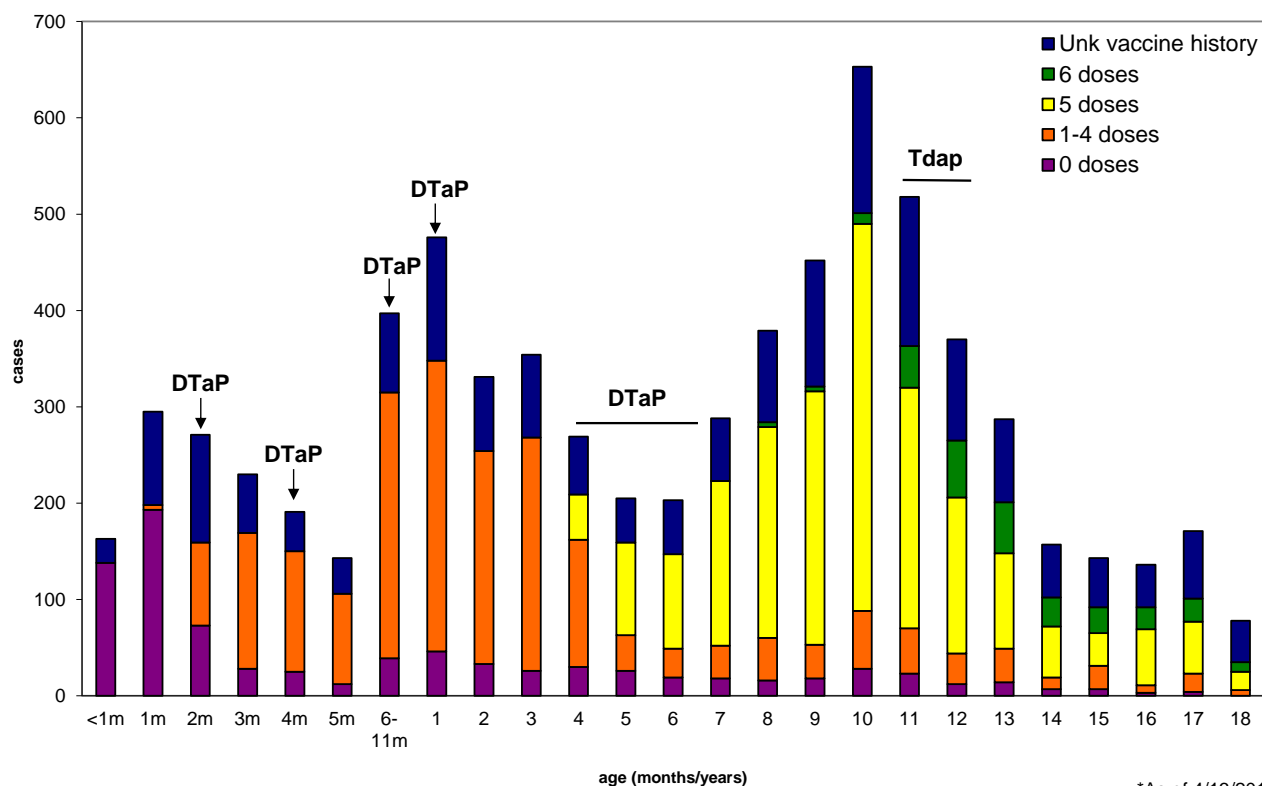


Figure 4. Pertussis cases by age and race/ethnicity -- California, 2010*



*As of 4/13/2011

Figure 5. Pertussis cases in children and adolescents aged 0-18 years, by vaccine history -- California, 2010*



*As of 4/13/2011

Table 1. Pertussis cases reported to CDPH by local health jurisdiction -- California, 2010-2011*

	2010		2011	
	Cases	Rate	Cases	Rate
CALIFORNIA	9273	23.69	733	6.54
ALAMEDA	427	29.59	48	11.66
City of Berkeley*	16	14.93	3	9.89
ALPINE	0	0.00	0	0.00
AMADOR	3	7.44	10	86.05
BUTTE	32	13.91	1	1.50
CALAVERAS	9	18.85	2	14.54
COLUSA	11	46.24	0	0.00
CONTRA COSTA	215	19.98	18	5.83
DEL NORTE	16	51.64	0	0.00
EL DORADO	54	28.52	1	1.84
FRESNO	556	56.53	16	5.63
GLENN	1	3.24	0	0.00
HUMBOLDT	59	43.77	7	18.25
IMPERIAL	10	5.27	1	1.82
INYO	8	41.70	0	0.00
KERN	374	42.90	10	3.96
KINGS	26	15.80	3	6.29
LAKE	5	7.40	0	0.00
LASSEN	1	2.64	0	0.00
LOS ANGELES**	1357	13.75	88	3.13
City of Long Beach*	72	14.61	3	2.15
City of Pasadena*	23	15.31	0	0.00
MADERA	125	77.11	3	6.34
MARIN	350	137.97	6	8.35
MARIPOSA	10	52.33	0	0.00
MENDOCINO	30	32.20	0	0.00
MERCED	133	48.55	5	6.29
MODOC	0	0.00	0	0.00
MONO	19	128.09	0	0.00
MONTEREY	118	27.23	7	5.66
NAPA	24	16.81	3	7.32
NEVADA	28	27.28	2	6.81
ORANGE	501	15.52	28	3.04
PLACER	50	14.39	6	5.97
PLUMAS	2	9.16	0	0.00
RIVERSIDE	471	21.04	65	9.98
SACRAMENTO	190	13.09	25	6.02
SAN BENITO	8	12.46	2	10.71
SAN BERNARDINO	182	8.36	15	2.39
SAN DIEGO	1148	35.88	81	8.85
SAN FRANCISCO	153	18.70	22	9.46
SAN JOAQUIN	85	11.46	4	1.86
SAN LUIS OBISPO	378	140.14	7	9.09
SAN MATEO	189	25.66	13	6.21
SANTA BARBARA	64	14.73	5	4.04
SANTA CLARA	499	27.16	123	23.46
SANTA CRUZ	87	32.46	3	3.93
SHASTA	32	16.69	5	9.06
SIERRA	0	0.00	0	0.00
SISKIYOU	11	23.35	0	0.00
SOLANO	38	8.62	2	1.58
SONOMA	247	49.86	46	32.53
STANISLAUS	168	30.02	14	8.64
SUTTER	5	4.89	0	0.00
TEHAMA	11	16.77	3	15.84
TRINITY	0	0.00	0	0.00
TULARE	235	50.33	23	16.96
TUOLUMNE	32	54.49	0	0.00
VENTURA	348	40.66	0	0.00
YOLO	22	10.67	4	6.73
YUBA	5	6.22	0	0.00

*City health jurisdictions not included in county total

**Data are preliminary and include cases reported to CDPH as of 4/13/2011